

November 19, 2003

Chuck Semborski, Environmental Supervisor  
Energy West Mining Company  
P.O. Box 310  
Huntington, Utah 84528

Re: 2003 Midterm Review, PacifiCorp, Deer Creek Mine, C/015/0018, Task ID  
#1694, Outgoing File

Dear Mr. Semborski:

The above-referenced review has been conducted. There are deficiencies that must be adequately addressed in order to complete the review. A copy of our Technical Analysis is enclosed for your information. In order for us to complete the midterm process, please respond to these deficiencies by December 19, 2003.

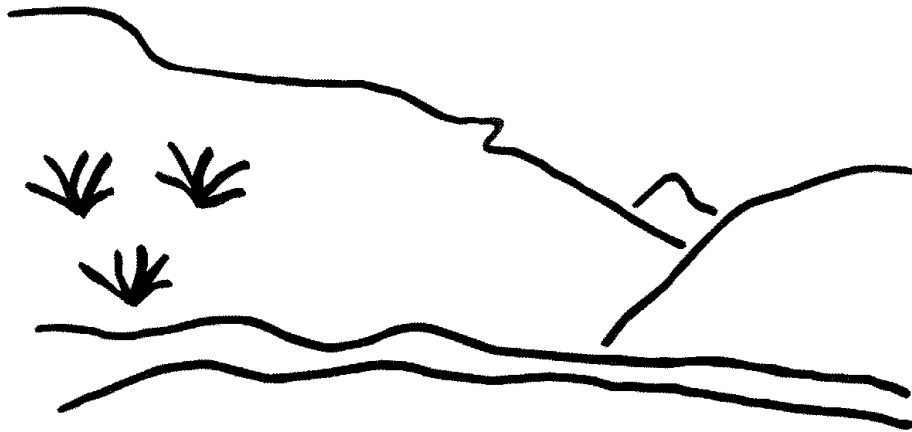
If you have any questions, please call me at (801) 538-5325 or Jim Smith at (801) 538-5262.

Sincerely,

Daron R. Haddock  
Permit Supervisor

an  
Enclosure  
cc: Price Field Office  
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# **State of Utah**



## *Utah Oil Gas and Mining*

### **Coal Regulatory Program**

Deer Creek Mine  
2003 Midterm Review  
C/015/0018 Task ID #1694  
Technical Analysis  
November 14, 2003



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## TECHNICAL ANALYSIS

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## TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the Permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings that comprise the necessary components of an application. Each section is analyzed and specific findings are then provided that indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference that describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

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## **TECHNICAL ANALYSIS**

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## INTRODUCTION

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## INTRODUCTION

In accordance with R645-303-211, the Division is required to review each active permit during its term, not later than the middle of the permit term, and is to cover pertinent elements that have been selected for review. The Deer Creek Mine permit was renewed February 7, 2001 (and last revised dated June 24, 2003) and the mid-term date was August 07, 2003. The Division notified PacifiCorp (the Permittee) of the mid-term review for the Deer Creek Mine in a letter to Energy West Mining Company (a subsidiary of PacifiCorp and operator of the Deer Creek Mine) dated September 16, 2003. Items chosen for the midterm review for the Deer Creek Mine include:

1. An AVS check to ensure that Ownership and Control information is current and correct.
2. A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).
3. A review of the plan to ensure that the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document.
4. A review of the applicable portions of the permit to ensure that the plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
5. A review of the bond to ensure that it is in order and that the cost estimate is accurate and is escalated to the appropriate year dollars.

Mid-term reviews can include a technical site visit, in conjunction with the assigned compliance inspector, to document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices. No such site visit was made for this review.

The Deer Creek Mine permit covers the portal area in Deer Creek Canyon and the Deer Creek Waste Rock Storage Facility in Huntington Canyon, near the Huntington Power Plant cooling pond. It includes fan portals and an access road in Rilda Canyon and two fan portals in Meetinghouse Canyon.



## INTRODUCTION

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Three special conditions are attached to the Permit:

1. If during entry development, sustained quantities of groundwater are encountered which are greater than 5 gpm from a single source in an individual entry, and which continue after operational activities progress beyond the area of groundwater production, PacifiCorp must monitor these flows for quality and quantity under the approved baseline parameters. PacifiCorp will notify the Division within 24 hours prior to initiation of monitoring.
2. This special condition is for normal working circumstances and does not apply in an emergency situation: Vehicle access will not be allowed in Rilda Canyon from December 1 to April 15 for construction, maintenance and/or repair of the Rilda Canyon Surface Facilities without prior written approval from the Division. Access will be allowed to the Rilda Canyon Surface Facilities through the Deer Creek Mine portals.
3. PacifiCorp will submit water quality data for the Deer Creek Mine beginning with data for the second quarter of 2001 in an electronic format through the Electronic Data Input web site, <http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi>.

The Permittee is monitoring several in-mine flows and has not recently notified the Division of any new inflows that meet the criteria of Condition 1. The Permittee is meeting the requirements of Conditions 2 and 3.

Discussions with the operator and Division staff indicate that the operator has a pending application before the Division, Task ID #1647. This application deals with the legal and financial section of the permit. The permittee wants Volume 1 to be universal for several permits as indicated in Task ID# 1647. OSM found deficiencies with this document when compared to the AVS, for the officer and directors list.

A separate review of the AVS system for this application, Task ID #1694, was compared to the approved MRP. This review showed discrepancies. In short, the discrepancies found in the midterm review for the officers and directors list will be addressed under a separate permitting action, Task ID #1647. This separate permitting action needs to include an updated list of violations for the three (3) previous years. This information was found to be outdated during the midterm review of the currently approved MRP.

Two changes to the way the Division now evaluates the bond are 1) the Division escalates bonds from midterm to midterm and 2) the Division requires that the Permittee include a copy of the reclamation cost estimate in the mining and reclamation plan. The current reclamation bond for the Deer Creek Mine is for \$3,000,000 and the current reclamation cost estimate is for \$2,703,000. Because the bond amount exceeds the reclamation escalated to 2007,

## **INTRODUCTION**

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no change in the bond is needed. The Division should require the Permittee to include the Division's reclamation cost estimate in the MRP. The Division will give the Permittee a copy of the Division's reclamation cost estimate so that the Permittee can include it in the MRP.

## **INTRODUCTION**

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## GENERAL CONTENTS

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# GENERAL CONTENTS

## IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

### **Analysis:**

The information contained in the currently approved MRP is outdated and has discrepancies when compared to the AVS system for the midterm review. The officers and directors list for the corporations associated with this permit has changed since this permit was re-issued.

### **Findings:**

The discrepancies found in the midterm review for the officers and directors list will be addressed under a separate permitting action, Task ID #1647 as indicated in the summary of this memo. Division supervision felt that this was the best way to address the deficiencies and not to run two permitting actions against each other.

## VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

### **Analysis:**

The list of violations for the three previous years in the approved MRP is outdated and needs to be updated.

### **Findings:**

The deficiencies found in the midterm review for three previous years of violation history will be addressed under a separate permitting action, Task ID #1647 as indicated in the summary of this memo. Division supervision felt that this was the best way to address the deficiencies and not to run two permitting actions against each other.

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## **GENERAL CONTENTS**

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## OPERATION PLAN

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# OPERATION PLAN

## FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

### Analysis:

#### **Wetlands and Habitats of Unusually High Value for Fish and Wildlife**

Adverse effects of mining on water quantity to the Colorado River drainages do affect four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, bonytail chub, and razorback sucker). The USFWS considers water depletion to the Colorado River drainage as a potential jeopardy to these endangered fish. Water users may be required to mitigate if the overall water consumption is greater than 100 acre-feet per year.

The Permittee is required to address possible adverse affects to these four fish species by first calculating the amount of water used by all mining operations and explorations. The “Windy Gap Process” provides a guideline of parameters necessary to calculate overall water consumption for coal mines. The Permittee may obtain the “Windy Gap Process as it Applies to Existing Coal Mines in the Upper Colorado River Basin” (Discussion Paper) from the USFWS (801-975-3330). This discussion paper provides descriptions of equation parameters and guidelines for coal operators to follow. In brief, consumption estimates must at least include the following:

- Mining consumption
- Ventilation consumption
- Coal producing consumption
- Ventilation evaporation
- Sediment pond evaporation
- Springs and seep effects from subsidence
- Alluvial aquifer abstractions into mines
- Alluvial well pumpage
- Deep aquifer pumpage
- Postmining inflow to workings
- Coal moisture loss
- Direct diversions.

## **GENERAL CONTENTS**

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The Permittee provided the total for the overall consumption for the Mill Fork Lease Application. The Division reminds the Permittee that this overall consumption total will need to be adjusted for the Rilda Canyon project. The Rilda Canyon amendment must include all equations and justifications with supporting documentation leading to the overall sum of water depletions/additions for all mining operations and explorations. (R645-301-322; -333).

### **Findings:**

Information provided in the application is considered adequate to meet the minimum Fish and Wildlife Information section of the Operation Plan regulations. The Division reminds the Permittee, however, that the Permittee must provide all equations and justifications with supporting documentation leading to the overall sum of water depletions/additions for all mining operations and explorations with the Rilda Canyon amendment.

## **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### **Analysis:**

#### **General**

Underground mining and reclamation activities at the Deer Creek Mine are conducted so as to minimize disturbance of the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of this part. Additional contributions of suspended solids and sediment to streamflow or runoff outside the permit area are prevented to the extent possible using the BTCA.

#### **Sediment Control Measures**

Sediment control at the main Deer Creek Mine yard in Deer Creek and Elk Canyons consists of an undisturbed drainage bypass system, ditches for disturbed area drainage, and a sedimentation pond. Methods that are used to control sediment at the several ASCAs include silt fences, berms, straw bales, and sediment traps. (Methods listed in the MRP but not currently used are gravel-filter dikes, check dams, catch basins, and mulches.) There are eight ASCAs associated with the Deer Creek Mine main pad, totaling 16.48 acres.

## **OPERATION PLAN**

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At the Deer Creek Waste Rock Storage Facility there are diversions, silt fencing, a sedimentation pond, and a berm of topsoil around the Phase I waste pile. There are two ASCAs, covering a total of 2.41 acres. One ASCA is the outslope of the topsoil berm around the waste pile, the other is along the sides of the access road. Silt fence and revegetation provide sediment control. A BTCA area at the east end of the waste pile utilizes silt fencing as the sediment control measure: this will be superseded by a sedimentation pond if Phase II of the waste storage facility is ever built.

At the Rilda Canyon Surface Facilities, the topsoil pile has been revegetated and silt fence has been placed along the entire length of the toe of the pile. Along the access road, silt fence and straw bales provide sediment control for two BTCA areas (2.01 acres) and ditches and culverts provide additional drainage and sediment control. The pad was built from imported fill that is retained by a Hilficker type wall system. All precipitation on the 1.02-acre gravel surface of the pad is captured and directed into the mine through the portals.

Berms control sediment at the two small ASCAs at the fan-portal breakouts in Meetinghouse Canyon. Drainage from these disturbed areas is into the mine.

### **Siltation Structures: General**

Sediment control at the main Deer Creek Mine yard in Deer Creek and Elk Canyons and at the Deer Creek Waste Rock Storage Facility includes sedimentation ponds. Additional contributions of suspended solids and sediment to streamflow or runoff outside the permit area are prevented to the extent possible using the BTCA. Construction and design of the sedimentation ponds was under the direction of a registered professional engineer. The sedimentation ponds are inspected quarterly by a registered professional engineer.

### **Siltation Structures: Other Treatment Facilities**

There are no "other treatment facilities" at the Deer Creek Mine. The sedimentation pond discharge at the mine has a UPDES permit. The pond at the Waste Rock Storage Facility is designed for total containment and has no UPDES permit.

### **Siltation Structures: Exemptions**

There are no exempt areas at the Deer Creek Mine. Runoff from all disturbed areas is treated by some type of sediment control measure.



### **Discharge Structures**

The pond in Deer Creek Canyon is designed for total containment of a 10-year, 24-hour event. Drainage of the pond is controlled with a manual slide-gate valve. A grouted riprap spillway provides controlled release for a 100-year, 24-hour event.

The sedimentation pond at the Waste Rock Storage Facility is sized for total containment of two consecutive 100-year, 24-hour storm events. There is no discharge structure; however, there is an emergency spillway, which is armored with grouted riprap.

### **Impoundments**

Sediment control at the main Deer Creek Mine yard in Deer Creek and Elk Canyons and at the Deer Creek Waste Rock Storage Facility includes sedimentation ponds. Neither pond is an MSHA pond (30 CFR Sec. 77.216(a)).

The sedimentation pond at the Waste Rock Storage Facility is designed for total containment of two consecutive 100-year, 24-hour precipitation events. There is no primary spillway, but there is a grouted riprap emergency spillway that is designed for a 100-year, 24-hour event, with an energy dissipater at the end.

The pond in Deer Creek Canyon is designed for total containment of a 10-year, 24-hour event. After 24-hours retention, the water can be drained through a manual slide-gate valve. A grouted riprap spillway provides controlled release of runoff from a 100-year, 24-hour event.

The sedimentation ponds are inspected quarterly by a qualified registered professional engineer or land surveyor. A certified report is provided to the Division.

### **Ponds, Impoundments, Banks, Dams, and Embankments**

Sediment control at the main Deer Creek Mine yard in Deer Creek and Elk Canyons and at the Deer Creek Waste Rock Storage Facility includes sedimentation ponds. Neither pond is an MSHA pond (30 CFR Sec. 77.216(a)). Both sedimentation ponds are temporary. Both are combined incised and embankment structures. They have been designed in compliance with the requirements of Siltation Structures.

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## OPERATION PLAN

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### **Findings:**

The plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.



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## RECLAMATION PLAN

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# RECLAMATION PLAN

## BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

### Analysis:

#### Determination of Bond Amount

The Division reviewed the reclamation cost estimate for the Deer Creek Mine and found that the bond amount is less than the bond amount. The current bond is for \$3,000,000 and the current reclamation cost estimate is for \$2,703,000 in 2007 dollars.

The Division now escalates bonds from midterm to midterm. That is the reason for the change in the number of years the bond is escalated.

The Division now requires that a copy of the Division's reclamation cost estimate be included in the MRP. The reason for that is for consistency and so that anyone reviewing the MRP can see, how the bond was calculated.

The Division will give a copy of the reclamation cost estimate to the Permittee.

### Findings:

The information in the MRP is not considered adequate to meet the minimum requirements of this section of the regulations. The Permittee must give the Division the following in accordance with:

**R645-301-830.110 and R645-301-541.400,** The Permittee will include a copy of the Division's reclamation cost estimate in the MRP. The Division will give the Permittee a copy of the reclamation cost estimate. If the Permittee has any questions about the reclamation cost estimate the Division will review the reclamation cost estimate with the Permittee before the information is included in the MRP.